

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include changes to Fig. 67-129. These sheets replace the original sheets including Figs. 67-129.

As requested in the Notice to File Corrected Application Papers, the drawings 67-129 have been corrected to replace the word "Diagram" with the word -- Fig. -- in its place.

Attachment: Replacement Sheets (63 sheets)

Annotated Sheets Showing Changes (63 sheets)

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

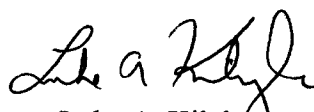
The amendment to drawings 67-129 has been made in response to the Notice to File Corrected Application Papers dated August 11, 2009. In the Notice, the U.S. Patent and Trademark Office stated that drawings 69-129 were labeled "Diagram." Upon review, the applicant's representative noted that drawings 67-129 were labeled "Diagram." Accordingly, drawings 67-129 have been corrected to replace the word "Diagram" with the word -- Fig. -- to be consistent with previously-filed Figs. 1-66. The applicant believes that this fully responds to the drawing requirements set forth in the Notice to File Corrected Application Papers. This amendment is limited to a correction of an informality and is not substantive in nature.

Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

CONCLUSION

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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U.S. Patent Application No. 10/681,352
Amendment After Allowance dated August 20, 2009
Reply to Notice to File Corrected Application Papers of August 11, 2009

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Attachments: Replacement Sheets (63 sheets)
 Annotated Sheets Showing Changes (63 sheets)

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Diagram 67

		Equivalence	Prognosis Total (+) vs (-) Total	Prognosis Total (homo) Total	Prognosis Total Total	Prognosis Total (+) Vs (-) Stomach	Prognosis Total (homo) Stomach	Prognosis Stomach Total (+) vs (-) Other cancers	Prognosis Total (homo) Other cancers	Prognosis Other cancers Total (+) vs (-) Total	Treatment Effect Total (+) vs (-) Total
	DQ	Diversity									
12	aqp_27 aqp_21	AS DG			GG66.7					DD87.5	no adjuvant therapy D(-)>(+)
24	aqp_10 aqp_9	AS IM			II80					II100	
27	aqp_6	ST			TT66.7					SS87.5	no adjuvant therapy S(-)>(+)
28	aqp_5	LPS			LL80, SS80	L(-)>(+)	L(-)>hetero			LS100, SS100	
29	aqp_4	LV			VV66.9					LL87.5	no adjuvant therapy L(-)>(+)
35	aqp3	PS	3P=3S=9L =37D		PS68					PS69.4	
41	aqp9	FLY	Y(+)>(-)	Yhetero>(-)	LY71.80					LY720	no adjuvant therapy Y(+)>(-), immunotherapy Y(+)>(-)
45	aqp13	AG			AA67					AG68.4	
46	aqp14	LM	L=M		LM70.1					LM72.4	
55	aqp23	LR	L=R		LR67.4					RR68.1	
										R(+)>(-)	Lhetero,(-) >homo, Rhetero,ho mo>(-)
	aqp26	GLY									
60	aqp28	ST	28S=28T= 30S=37I=4 6V=46E=4 7F=47Y=5 2P=52L=5 5L		ST68.2					ST77.8	TT63.4
62	aqp30	HSY			SY75					HS100	SY100
69	aqp37	DIY			DY68					IV83.3	DY65.3
											immunotherapy H(+)>(-)

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Fig.
 Diagram 68

			Prognosis Total (+) vs (-)	Prognosis Total (homo) Total	Prognosis Total (+) vs (-)	Prognosis Total (homo) Stomach	Prognosis Stomach vs (-) Other cancers	Prognosis Total (homo) Other cancers	Treatment Effect Total (+) vs (-) Total
	DQ	Diversity							
70	apb38	AV	A=V			VV69.4	VV71.7	AV64.7	
77	apb45	EG	E=G			EG67	EG68.6	EG64.2	
78	apb46	EV	E=V			EV68.2	EV77.8	VV63.4	
79	apb47	FY	F=Y			FY68.2	FV77.8	YY63.4	
84	apb52	LPS	52P=52L			LP68.2	LP77.8	PP63.4	
85	apb53	LQ	L=Q			QQ66.5	LQ68.5	QQ64.9	
87	apb55	LPR	55P=55R			LP1000	LR750	PR68.3	
88	apb56	LP	L=P			LP67.20	LP68.4	LP65.8	
89	apb57	ADSV							
98	apb66	DE	66D=66E=67=66V	E(+)>(-)		AA64.70	AS100	SV80	
99	apb67	IV	I=V	V(+)>(-)					
102	apb70	EGR							
103	apb71	ADKT							
106	apb74	AES							
107	apb75	LV							
109	apb77	RT							
116	apb84	EQ							
117	apb85	LV							
118	apb86	AEG							

Fig.

Diagram 69

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			Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Total	Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) vs (-) Other cancers	Prognosis Total (homo) Other cancers	Prognosis Total (+) vs (-) Total
	DQ	Diversity	Total	Total	FY72.1	Stomach	Stomach	LY72.1		FY75.90	Immunotherapy Y(+)>(-)
199	aqp87	FLY									
121	aqp89	GT			GG66.5			GT68.5		GG64.9	
122	aqp90	IT			II66.5			IT68.5		II64.9	
148	aqp116	IV									
157	aqp125	AGS			GS74.4			GS75.3		GS72.5	
158	aqp126	HQ			HQ71.4			QQ67.9		HQ71.5	
162	aqp130	QR			QR66.9			RR68.2		QR67.2	Immunotherapy R(+)>(-)
172	aqp140	AT			AA66.4			AT68.4		AA64.1	
199	aqp167	HR			HH67			HR68.4		HH65.3	
214	aqp182	NS			SS66.4			NS68.4		SS64.1	
217	aqp185	IT			II67.8			II69.4		II65	
229	aqp197	NS			NS68			NS69.4		NS65.3	
235	aqp203	IV			IV67.5			IV70.7		VV66.9	
252	aqp220	HR			RR66.5			HR68.5		RR64.9	
253	aqp221	HQ			QQ66.5			HQ68.5		QQ64.9	
256	aqp224	QR			QR70.1			QR72.4		RR70	
	All survived		DQ71AKD K(3)			DQ74AS(3)					

Fig.
Diagram 70

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		Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
		Total (homo)	All cases	Total (+) Vs (-)	Total (homo)	Stomach cancer	Total (+) Vs (-)	Total (homo)
DQ	Diversity	Total		Stomach	Stomach		Other cancers	Other cancers
aqp_27	AS	no adjuvant therapy D- >hetero, (homo), no adjuvant therapy	no adjuvant therapy GG87.8	no adjuvant therapy D(-)>(+) (+)	no adjuvant therapy D(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy GG92.6		
aqp_21	DG	no adjuvant therapy D- >hetero, (homo), no adjuvant therapy						
aqp_10	AS	no adjuvant therapy D- >hetero, (homo), no adjuvant therapy						
aqp_9	IM	no adjuvant therapy S(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy TT87.8	NIS S(-)>(+) (+)	no adjuvant therapy S(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy TT92.6		
aqp_6	ST	no adjuvant therapy S(-) >hetero, (homo), no adjuvant therapy						
aqp_5	LPS	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	Immunotherapy PP62	no adjuvant therapy L(-)>(+) (+)	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy PP92.6	no adjuvant therapy L(-)>(+) (+)	
aqp_4	LV	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy VV67.8	no adjuvant therapy L(-)>(+) (+)	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy VV92.6		
aqp_3	PS	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	no adjuvant therapy SS(78)				NI S(-)>(+) (+)	no adjuvant therapy P(-) >hetero, (homo), no adjuvant therapy
aqp_9	FLY	no adjuvant therapy L(-) >hetero, (homo), no adjuvant therapy	Chemotherapy LY(64.5), Immunotherapy YY(63.9)	Immunotherapy Y(+)>(+) (+)	Immunotherapy Y(+)>(+) (+)	no adjuvant therapy Y(+)>(+) (+)	no adjuvant therapy Y(+)>(+) (+)	no adjuvant therapy LY(75.1), Chemotherapy LY(65.8), Immunotherapy LY(68.1)
aqp13	AG							
aqp14	LM							
aqp23	LR							
aqp26	GLY							
aqp28	ST							
aqp30	HSY	Immunotherapy H(-) >hetero, (homo), no adjuvant therapy	Immunotherapy HY(69.6)		Immunotherapy H(-) >hetero, (homo), no adjuvant therapy	Immunotherapy HY(65.2)		
aqp37	DIY	no adjuvant therapy YY(78.2), Chemotherapy DY(62.5)					no adjuvant therapy Y(+)>(+) (+)	no adjuvant therapy D(-) >hetero, (homo), no adjuvant therapy

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Fig.
Diagram 71

	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
	Total (homo)	All cases	Total (+) Vs (-)	Total (homo)	Stomach cancer	Total (+) Vs (-)	Total (homo)
DO	Diversity		Stomach	Stomach	Chemotherapy AV(65.2)	Other cancers Chemotherapy A (+)>(-)	Other cancers no adjuvant therapy VI(-),hetero>homo, no adjuvant therapy Ahomo,hetero>(-)
aqp38	AV			Chemotherapy Ahetero>(-),homo, Chemotherapy Vhetero>(-),homo			no adjuvant therapy AV(71.3)
aqp45	EG						
aqp46	EV						
aqp47	FY						
aqp52	LPS						
aqp53	LQ						
aqp55	LPR						
aqp56	LP						
aqp57	ADSV	Immunotherapy Ahomo (all survived)>(-), hetero	Immunotherapy AA (100)	Immunotherapy Vhetero,(-)>homo	Immunotherapy AA(100)		
aqp66	DE	no adjuvant therapy Dhetero,((-))>homo, Chemotherapy Dhetero,((-))>homo, Immunotherapy Dhetero,((-))>homo, no adjuvant therapy Ehetero,((-))>homo, Chemotherapy Ehetero,((-))>homo, Immunotherapy Ehetero>(-),homo, Immunotherapy Ehetero,homo>(-)	no adjuvant therapy EE(77.7), Chemotherapy DE(62.1), Immunotherapy EE(60.3)	Chemotherapy Dhetero>(-),homo, Chemotherapy Ehetero>(-),homo	Chemotherapy DE(65.1)	Chemotherapy Dhetero>((-)),homo, Chemotherapy Ehetero,(homo)>(-)	Chemotherapy DE(59.1)
aqp67	IV	no adjuvant therapy Ihetero,((-)), Chemotherapy Ihetero>(-),homo, Immunotherapy Ihetero,((-))>homo, no adjuvant therapy Vhetero,((-))>homo, Chemotherapy Vhetero>(-),homo, Immunotherapy Vhetero,homo>(-)	no adjuvant therapy IV(79.6), Chemotherapy DE(62.1), Immunotherapy EE(60.3)	Chemotherapy Ihetero>(-),homo, Chemotherapy Vhetero>(-),homo	Chemotherapy IV(65.1)	Chemotherapy Ihetero,((-))>homo, Chemotherapy Vhetero,(homo)>(-)	Chemotherapy IV(59.1)
aqp70	EGR						Chemotherapy VV(60.8)
aqp71	ADKT						no adjuvant therapy AD(41.7), Chemotherapy IT(59.9)
aqp74	AES						
aqp75	LV						
aqp77	RT						
aqp84	EQ						
aqp85	LV						
aqp86	AEg	Immunotherapy Ghetero>(-)>homo	Immunotherapy EG(78.2)	Immunotherapy E(-)>(+)	Chemotherapy AA(70.6), Immunotherapy EG(60.8)	no adjuvant therapy Ahetero,((-))>homo	no adjuvant therapy AG(67.5)

Fig.
Diagram 72

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		Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
		Total (homo)	All cases	Total (+) Vs (-)	Total (homo)	Stomach cancer	Total (+) Vs (-)
DQ	Diversity	Total	no adjuvant therapy FY(82.3), Immunotherapy LY(71.2)	Immunother- apy F(-)>(+) Vs (-)	Stomach Immunotherapy A(-) >(homo), Chemotherapy Flomo>hetero, (-)	Chemotherapy FF(81.3), Immunotherapy LY(68.1)	Other cancers
aqb87	FLY	Immunotherapy Yhetero>homo, (-)					no adjuvant therapy Fhetero, (-) >homo
							no adjuvant therapy FY(75), YY(75)
aqb89	GT						
aqb90	IT						
aqp116	IV						
aqp125	AGS						no adjuvant therapy AS(73.7)
aqp126	HQ						
aqp130	QR	Immunotherapy Qhetero>(-)>homo, Immunotherapy Rhetero>homo>(-)	Immunotherapy QR(75)				
aqp140	AT						
aqp167	HR						
aqp182	NS						
aqp185	IT						
aqp197	NS		no adjuvant therapy SS(78)			NIS SS(70)	no adjuvant therapy S(+)>(-)
							no adjuvant therapy N(-) >hetero>homo, no adjuvant therapy Shomo, hetero>(-)
aqp203	IV						
aqp220	HR						
aqp221	HQ						
aqp224	QR						
	All survived						

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Fig.
Diagram 73

		DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	Smoking
DQ	Diversity					
aqp_27	AS					
aqp_21	DG					
aqp_10	AS					
aqp_9	IM					
aqp_6	ST					
aqp_5	LPS					
aqp_4	LV					
aqp_3	PS			#		
aqp9	FLY					
aqp13	AG					
aqp14	LM			LL100, LM23.20		
aqp23	LR					
aqp26	GLY					
aqp28	ST					
aqp30	HSY			#		
aqp37	DIY					#

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Fig.
Diagram 74

		DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	Smoking
DQ	Diversity				#	#
aqp38	AV					
aqp45	EG	EE50, GG19.4 O			AV24.1, VV15.6O	
aqp46	EV					
aqp47	FY					
aqp52	LPS					
aqp53	LQ	LQ26.4, QQ12.5O				
aqp55	LPR	PR29.7, LR0O				
aqp56	LP					
aqp57	ADSV					
aqp66	DE					
aqp67	IV					
aqp70	EGR					
aqp71	ADKT			#		
aqp74	AES					
aqp75	LV					
aqp77	RT			RR100, RT22.5 O		
aqp84	EQ	EQ26.4, EE12.5O				
aqp85	LV	LV26.4, VV12.5				
aqp86	AEG		GG94.4, EG82.8O			

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Fig.
~~Diagram~~ 75

		DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	Smoking
DQ	Diversity			YY50, II20 O		
aqp87	FLY					
aqp89	GT	GT26.4, GG12.5				
aqp90	IT	IT26.4, II12.5				
aqp166	IV			II100, IV23.2		
aqp125	AGS			SS100, AA20 O		
aqp126	HQ					
aqp130	QR		#			
aqp140	AT	AT26.8, AA12.2 O				
aqp167	HR					
aqp182	NS	NS26.8, SS12.2 O				
aqp158	IT					
aqp197	NS			#		DI66.7, DD39.1 O
aqp203	IV	#		VV32, II22.2		
aqp220	HR	HR26.4, RR12.5 O				
aqp221	HQ	HQ26.4, QQ12.5 O				
aqp224	QR			RR100, QR23.2 O		
	All survived					

Fig.
~~Diagram~~ 76

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DR		Total			All cases Treatment Effect	Stomach Cancer Treatment Effect	Other cancers Treatment Effect
Nucleic Acid	No. of Diversity	Total	Stomach	Other cancers			
-16	3		agCGaGCG> agCGaGCU		Immunotherapy: kAAAKAAA>kAAGkAAg> kAAAKAAg	Immunotherapy: kAAAKAAA>kAAGkAAg> kAAAKAAg	no adjuvant therapy: kAAAKAAg>kAAGkAAg
4	3						
12	5						
14	3						
19	2						
26	5						
28	4		hCAGeGAA> hCAGeGAG				
34	3						no adjuvant therapy: qCAAgCAA> qCAAgCAG
53	2						no adjuvant therapy: dGACdGAU, dGAUdGAU>dGACdGAC, Chemotherapy: agCCaGCU>agCCaGCU, agCCaGCU>agCCaGCG
57	7			dGACdGAU> dGAUdGAU			
58	6			egAGaGCC> egAGaGCU	no adjuvant therapy: agCCaGCG>agCGUaGCU, Chemotherapy: agCUaGCU, agCGaGCG, agCCaGCU>agCCaGCU		
69	3						
72	5		rcGGrcGG> rcGGrcGG		no adjuvant therapy: rcGGrcGG>rcGGrcGU	no adjuvant therapy: rcGGrcGG>rcGGrcGU Chemotherapy: rcGGrcGU, rcGGrcGG, rcGGrcGG>rcGGrcGCG	
78	3				Chemotherapy: yUAGyUAC> yUAGyUAG		Chemotherapy:
90	2						
93	2						

Fig.
Diagram 77

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DR	Total	Stomach	Other cancers	All cases Treatment Effect	Stomach Cancer Treatment Effect	Other cancers Treatment Effect
Nucleic Acid	No. of Diversity	Total				
95	2					no adjuvant therapy: VGUGUGUG, VGUAVGUG>
101	2					VGUAVGUGA
104	3	agCAgGCC> agCAgAGCA				
106	2					
112	2					
117	2					
145	2					
152	2					
166	3			no adjuvant therapy: rCGGrCGG>rCGArCGA		no adjuvant therapy: rCGGrCGG, rCGArCGG> rCGArCGA
169	2					
179	2					
181	3		IACAmAUG> IAGCmAUG			
206	2					
217	2					

Fig.
Diagram 78

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DR					
Nucleic Acid	No. of Diversity	Cancer in Family	Alcohol	Metastases	Smoking
-16	3				
4	3				
12	5				
14	3				
19	2				
26	5				
28	4		eGAGeGAG(55.6), eGAAGAG(0), eGAAGAA(16.7)		
34	3				
53	2				
57	7				
58	6				
69	3				
72	5	rGGrCGU(50), rGGCrGG(40), rGGCrGC(0)			
78	3				
90	2				
30	2				

Fig.
Diagram 79

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DR					
Nucleic Acid	No. of Diversity	Cancer in Family	Alcohol	Metastases	Smoking
95	2			VGUCvGUC(33.2), VGUCvGUU(23.5), VGUUVGUU(42.9)	
101	2				
104	3				
106	2				
112	2				
117	2				
145	2				
152	2				
166	3				
169	2				
179	2				
181	3				
206	2				
217	2				

Fig.
-Diagram 80

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DR	No. of Diversity	Total	Stomach	Other cancers	All cases Treatment Effect	Stomach Cancer Treatment Effect
Nucleic Acid						
-29						
-23	2					no adjuvant therapy: pCCUpCCU>pCCcCpCCU, pCCcCpCCcC
-15	2					Same curve as DQ_23 pCCUpCCU>pCCcCpCCU, pCCcCpCCcC
DQNP19	2					
DQNP21	3			IACGIACC, IACGIACC>IACCIACC		
DQNP25	2					
DQNP27	2				Immunotherapy: VGUAVGUG, VGUGVGUG>VGUAVGUA	
DQNP35	2					
DQNP38	3			aGCAaGCG>aGCGaGCG		
DQNP47	3					
DQNP48	2					
DQNP49	3					
DQNP57	6					
DQNP62	2			nAACnAAC, nAACnAAU>nAAU		
DQNP72	2			IACCIACC, IACGIACC>IACCIACC		
DQNP77	4					
DQNP78	2			VGUAVGUG, VGUGVGUG> VGUAVGUA		
DQNP91	2					
DQNP93	2					
DQNP94	2					

Fig.
 Diagram 81

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DR		Total				All cases Treatment Effect	Stomach Cancer Treatment Effect
Nucleic Acid	No. of Diversity	Total	Stomach	Other cancers			
DQNP118	2						
DQNP135	3						
DQNP140	4						
DQNP147	2						
DQNP150	2						
DQNP154	2						
DQNP169	2						
DQNP191	2						
DQNP210	2						
DQNP213	2						
DQNP215	2						
DQNP218	2						
DQNP235	2						

Fig.
Diagram 82

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DR						
Nucleic Acid	No. of Diversity	Other cancers Treatment Effect	Cancer in Family	Alcohol	Metastases	Smoking
-29	2					
-23	2					
-15	2					
DQNP19	2	no adjuvant therapy: nAACnAAC, nAACnAAU> nAAUnAAU				nAACnAAC(54.7), nAACnAAU(59.8), nAAUnAAU(39.1)
DQNP 21	3	no adjuvant therapy: tACCTACG>tACAtACG				
DQNP25	2					
DQNP27	2					
DQNP35	2					
DQNP38	3	Chemotherapy: aGCAaGCG>aGCGaGCG				
DQNP47	3					
DQNP48	2					
DQNP49	3					
DQNP57	6					
DQNP62	2					
DQNP72	2	The Same curve with DQ19 rCGGrCGG, rCGArCGG>rCGArCGA				rCGArCGA(39.1), rCGrCGG(59.8), rCGGrCGG(54.7)
DQNP77	4	Chemotherapy: rAGGrAGG>rAGArAGG, rAGArAGA				
DQNP78	2					
DQNP91	2				ICUGICUG(39.7), ICUGIUUG(26.8), IUUGIUUG(31.8)	
DQNP93	2					
DQNP94	2					

Fig.
Diagram 83

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DR		Other cancers	Cancer in Family	Alcohol	Metastases	Smoking
Nucleic Acid	No. of Diversity	Treatment Effect				
DQNP118	2					
DQNP135	3				dGACdGAC(32.6), dGACdGAU(27.1), dGAUdGAU(34.4)	
DQNP140	4	no adjuvant therapy: aGCCaGCC>aCGUaGCU Immunotherapy: tACCaGCU>tACCaGCCC		TACcTACC(50), tACCtACCU(21.3), tACUtACCU(20.5)		
DQNP147	2				ICUCtCUC(47.8), ICUCtCUU(24.5), ICUUCU(32.1)	
DQNP150	2					
DQNP154	2					
DQNP169	2				dGACdGAC(32.6), dGACdGAU(27.1), dGAUdGAU(34.4)	
DQNP191	2					
DQNP210	2			ICUCtCUC(50), ICUCtCUG(18.6), ICUGtCUG(22.5)		
DQNP213	2				ICUCtCUC(32.6), ICUCtCUU(27.1), ICUUCU(34.4)	
DQNP215	2				LCUUCU(47.8), ICUGtCUU(24.5), ICUGtCUG(32.1)	
DQNP218	2					
DQNP235	2					

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Fig.
Diagram 84

DP		Total			All Cases	Stomach Cancer	Other cancers
Nucleic Acid	No. of Diversity	Total	Stomach	Other cancers	Treatment Effect	Treatment Effect	Treatment Effect
98	2	All same with the survival curve					
107	2	All same with the survival curve					
118	2	All same with the survival curve					
167	2	All same with the survival curve					
179	2	All same with the survival curve					
		All NS					

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Fig.
Diagram 85

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	M						M	M	M	
28	M						M	M	M	
27	V						V	V	V	
26	L						L	L	L	
25	Q						Q	Q	Q	
24	V						V	V	V	
23	S						S	S	S	
22	A						A	A	A	
21	A						A	A	A	
20	P						P	P	P	
19	Q						R	R	R	
18	T						T	T	T	
17	V						V	V	V	
16	A						A	A	A	
15	L						L	L	L	
14	T						T	T	T	
13	A						A	A	A	
12	L						L	L	L	
11	L						L	L	L	
10	M						M	M	M	
9	V						V	V	V	
8	L						L	L	L	
7	L						L	L	L	
6	T						T	T	T	
5	S						S	S	S	
4	V						V	V	V	
3	V						V	V	V	
2	Q						Q	Q	Q	
1	G						G	G	G	
1	R						R	R	R	
2	A						A	A	A	
3	T						T	T	T	
4	P						P	P	P	
5	E						E	E	E	
6	N						N	N	N	
7	Y						Y	Y	Y	
8	L	V					L or V	L or V	L or V	
9	F	H	Y				()	()	()	DP8 LV and DP F
10	Q						Q	Q	Q	
11	G	L					G or L	G or L	G or L	
12	R						R	R	R	
13	Q						Q	Q	Q	
14	E						E	E	E	
15	C						C	C	C	
16	Y						Y	Y	Y	
17	A						A	A	A	
18	F						F	F	F	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	Q						Q	Q	Q	
23	R						R	R	R	
24	F						F	F	F	
25	L						L	L	L	
26	E						E	E	E	
27	R						R	R	R	
28	Y						Y	Y	Y	

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Fig.
Diagram 86

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	I						I	I	I	
30	Y						Y	Y	Y	
31	N						N	N	N	
32	R						R	R	R	
33	E						E	E	E	
34	E						E	E	E	
35	F	L	Y				()	()	()	
36	A	V					A or V	A or V	AV	
37	R						R	R	R	
38	F						F	F	F	
39	D						D	D	D	
40	S						S	S	S	
41	D						D	D	D	
42	V						V	V	V	
43	G						G	G	G	
44	E						E	E	E	
45	F						F	F	F	
46	R						R	R	R	
47	A						A	A	A	
48	V						V	V	V	
49	T						T	T	T	
50	E						E	E	E	
51	L						L	L	L	
52	G						G	G	G	
53	R						R	R	R	
54	P						P	P	P	
55	A	D	E				AD	()	()	
56	A	E					()	()	()	
57	D	E					()	DE	()	
58	Y						Y	Y	Y	
59	W						W	W	W	
60	N						N	N	N	
61	S						S	S	S	
62	Q						Q	Q	Q	
63	K						K	K	K	
64	D						D	D	D	
65	F	I	L				IL	I or L	I or L	
66	L						L	L	L	
67	E						E	E	E	
68	E						E	E	E	
69	E	K					EK	E or K	E or K	
70	R						R	R	R	
71	A						A	A	A	
72	V						V	V	V	
73	P						P	P	P	
74	D						D	D	D	
75	R						R	R	R	
76	I	M	V				()	()	IM	
77	C						C	C	C	
78	R						R	R	R	
79	H						H	H	H	
80	N						N	N	N	
81	Y						Y	Y	Y	
82	E						E	E	E	
83	L						L	L	L	
84	D	G					()	DG	()	
85	E	G					()	EG	()	

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Fig.
Diagram 87

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
86	A	P					()	()	()	
87	M	V					()	MV	()	
88	T						T	T	T	
89	L						L	L	L	
90	Q						Q	Q	Q	
91	R						R	R	R	
92	R						R	R	R	
93	V						V	V	V	
94	Q						Q	Q	Q	
95	P						P	P	P	
96	K	R					()	()	()	
97	V						V	V	V	
98	N						N	N	N	
99	V						V	V	V	
100	S						S	S	S	
101	P						P	P	P	
102	S						S	S	S	
103	K						K	K	K	
104	K						K	K	K	
105	G						G	G	G	
106	P						P	P	P	
107	L						L	L	L	
108	Q						Q	Q	Q	
109	H						H	H	H	
110	H						H	H	H	
111	N						N	N	N	
112	L						L	L	L	
113	L						L	L	L	
114	V						V	V	V	
115	C						C	C	C	
116	H						H	H	H	
117	V						V	V	V	
118	T						T	T	T	
119	D						D	D	D	
120	F						F	F	F	
121	Y						Y	Y	Y	
122	P						P	P	P	
123	G						G	G	G	
124	S						S	S	S	
125	I						I	I	I	
126	Q						Q	Q	Q	
127	V						V	V	V	
128	R						R	R	R	
129	W						W	W	W	
130	F						F	F	F	
131	L						L	L	L	
132	N						N	N	N	
133	G						G	G	G	
134	Q						Q	Q	Q	
135	E						E	E	E	
136	E						E	E	E	
137	T						T	T	T	
138	A						A	A	A	
139	G						G	G	G	
140	V						V	V	V	
141	V						V	V	V	
142	S						S	S	S	
143	T						T	T	T	
144	N						N	N	N	

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Fig.
Diagram 88

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
145	L						L	L	L	
146	I						I	I	I	
147	R						R	R	R	
148	N						N	N	N	
149	G						G	G	G	
150	D						D	D	D	
151	W						W	W	W	
152	T						T	T	T	
153	F						F	F	F	
154	Q						Q	Q	Q	
155	I						I	I	I	
156	L						L	L	L	
157	V						V	V	V	
158	M						M	M	M	
159	L						L	L	L	
160	E						E	E	E	
161	M						M	M	M	
162	T						T	T	T	
163	P						P	P	P	
164	Q						Q	Q	Q	
165	Q						Q	Q	Q	
166	G						G	G	G	
167	D						D	D	D	
168	V						V	V	V	
169	Y						Y	Y	Y	
170	I	T					()	()	()	
171	C						C	C	C	
172	Q						Q	Q	Q	
173	V						V	V	V	
174	E						E	E	E	
175	H						H	H	H	
176	T						T	T	T	
177	S						S	S	S	
178	L	M					LM	()	()	
179	D						D	D	D	
180	S						S	S	S	
181	P						P	P	P	
182	V						V	V	V	
183	T						T	T	T	
184	V						V	V	V	
185	E						E	E	E	
186	W						W	W	W	
187	K						K	K	K	
188	A						A	A	A	
189	Q						Q	Q	Q	
190	S						S	S	S	
191	D						D	D	D	
192	S						S	S	S	
193	A						A	A	A	
194	R						R	R	R	
195	S						S	S	S	
196	K						K	K	K	
197	T						T	T	T	
198	L						L	L	L	
199	T						T	T	T	
200	G						G	G	G	
201	A						A	A	A	
202	G						G	G	G	
203	G						G	G	G	

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Fig.
Diagram 89

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
204	F						F	F	F	
205	V						V	V	V	
206	L						L	L	L	
207	G						G	G	G	
208	L						L	L	L	
209	I						I	I	I	
210	I						I	I	I	
211	C						C	C	C	
212	G						G	G	G	
213	V						V	V	V	
214	G						G	G	G	
215	I						I	I	I	
216	F						F	F	F	
217	M						M	M	M	
218	H						H	H	H	
219	R						R	R	R	
220	R						R	R	R	
221	S						S	S	S	
222	K						K	K	K	
223	K						K	K	K	
224	V						V	V	V	
225	Q						Q	Q	Q	
226	R						R	R	R	
227	G						G	G	G	
228	S						S	S	S	
229	A						A	A	A	

"or" – expected to be the same antigen

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Fig.
Diagram 90

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
32	M						M	M	M	
31	S						S	S	S	
30	W						W	W	W	
29	K						K	K	K	
28	K						K	K	K	
27	A	S					()	()	()	
26	L						L	L	L	
25	R						R	R	R	
24	I						I	I	I	
23	P						P	P	P	
22	G						G	G	G	
21	D	G					GG	()	GG	
20	L						L	L	L	
19	R						R	R	R	
18	A	V					()	()	()	
17	A						A	A	A	
16	T						T	T	T	
15	V						V	V	V	
14	T						T	T	T	
13	L						L	L	L	
12	M						M	M	M	
11	L						L	L	L	
10	A	S					()	()	()	
9	I	M					()	()	()	
8	L						L	L	L	
7	S						S	S	S	
6	S	T					TT	()	TT	
5	L	P	S				()	()	PP	
4	L	V					VV	()	VV	
3	A						A	A	A	
2	E						E	E	E	
1	G						G	G	G	
1	R						R	R	R	
2	D						D	D	D	
3	P	S					SS	PS	P or S	
4	P						P	P	P	
5	E						E	E	E	
6	D						D	D	D	
7	F						F	F	F	
8	V						V	V	V	
9	F	L	Y				()	LY	YY	DQ3 PS is same as DQ9 L
10	Q						Q	Q	Q	
11	F						F	F	F	
12	K						K	K	K	
13	A	G					()	AA	GG	
14	L	M					L or M	L or M	LM	
15	C						C	C	C	
16	Y						Y	Y	Y	
17	F						F	F	F	
18	T						T	T	T	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	E						E	E	E	
23	L	R					LR	L or R	RR	
24	V						V	V	V	
25	R						R	R	R	
26	G	L	Y				()	()	()	
27	V						V	V	V	

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Fig.
Diagram 91

Position	Diverse Amino Acid					no adjuvant therapy	Chemotherapy	Immunotherapy	
28	S	T				S or T	S or T	S or T	
29	R					R	R	R	
30	H	S	Y			HH	()	HY	
31	I					I	I	I	
32	Y					Y	Y	Y	
33	N					N	N	N	
34	R					R	R	R	
35	E					E	E	E	
36	E					E	E	E	
37	D	I	Y			YY	DY	()	DQ28 ST is same as DQ37I
38	A	V				A or V	A or V	A or V	
39	R					R	R	R	
40	F					F	F	F	
41	D					D	D	D	
42	S					S	S	S	
43	D					D	D	D	
44	V					V	V	V	
45	E	G				E or G	EG	E or G	
46	E	V				()	()	()	DQ28 ST is same as DQ46VE
47	F	Y				()	()	()	DQ28 ST is same as DQ47FY
48	R					R	R	R	
49	A					A	A	A	
50	V					V	V	V	
51	T					T	T	T	
52	L	P				()	()	()	DQ28 ST is same as DQ52PL
53	L	Q				LL	L or Q	L or Q	
54	G					G	G	G	
55	L	P	R			P or R	P or R	P or R	DQ28 ST is same as DQ55L
56	L	P				LP	PP	L or P	
57	A	D	S	V		()	()	AA	
58	A					A	A	A	
59	E					E	E	E	
60	Y					Y	Y	Y	
61	W					W	W	W	
62	N					N	N	N	
63	S					S	S	S	
64	Q					Q	Q	Q	
65	K					K	K	K	
66	D	E				DE	DE	EE	
67	I	V				IV	IV	VV	
68	L					L	L	L	
69	E					E	E	E	
70	E	G	R			()	()	()	
71	A	D	K	T		()	()	AT	
72	R					R	R	R	
73	A					A	A	A	
74	A	E	S			ES	()	ES	
75	L	V				LV	()	()	
76	D					D	D	D	
77	R	T				()	()	RT	
78	V					V	V	V	
79	C					C	C	C	
80	R					R	R	R	
81	H					H	H	H	
82	N					N	N	N	
83	Y					Y	Y	Y	
84	E	Q				QQ	()	QQ	
85	L	V				LL	()	()	
86	A	E	G			()	()	EG	

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Fig.
Diagram 92

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
87	F	L	Y				FY	()	LY	
88	R						R	R	R	
89	G	T					TT	()	()	
90	I	T					TT	()	()	
91	L						L	L	L	
92	Q						Q	Q	Q	
93	R						R	R	R	
94	R						R	R	R	
95	V						V	V	V	
96	E						E	E	E	
97	P						P	P	P	
98	T						T	T	T	
99	V						V	V	V	
100	T						T	T	T	
101	I						I	I	I	
102	S						S	S	S	
103	P						P	P	P	
104	S						S	S	S	
105	R						R	R	R	
106	T						T	T	T	
107	E						E	E	E	
108	A						A	A	A	
109	L						L	L	L	
110	N						N	N	N	
111	H						H	H	H	
112	H						H	H	H	
113	N						N	N	N	
114	L						L	L	L	
115	L						L	L	L	
116	I	V					()	()	IV	
117	C						C	C	C	
118	S						S	S	S	
119	V						V	V	V	
120	T						T	T	T	
121	D						D	D	D	
122	F						F	F	F	
123	Y						Y	Y	Y	
124	P						P	P	P	
125	A	G	S				GS	()	()	
126	H	Q					()	HQ	()	
127	I						I	I	I	
128	K						K	K	K	
129	V						V	V	V	
130	Q	R					()	RR	QR	
131	W						W	W	W	
132	F						F	F	F	
133	R						R	R	R	
134	N						N	N	N	
135	D						D	D	D	
136	Q						Q	Q	Q	
137	E						E	E	E	
138	E						E	E	E	
139	T						T	T	T	
140	A	T					TT	()	()	
141	G						G	G	G	
142	V						V	V	V	
143	V						V	V	V	
144	S						S	S	S	
145	T						T	T	T	

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Fig.
Diagram 93

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
146	P						P	P	P	
147	L						L	L	L	
148	I						I	I	I	
149	T						T	T	T	
150	N						N	N	N	
151	G						G	G	G	
152	D						D	D	D	
153	W						W	W	W	
154	T						T	T	T	
155	F						F	F	F	
156	Q						Q	Q	Q	
157	I						I	I	I	
158	L						L	L	L	
159	V						V	V	V	
160	M						M	M	M	
161	L						L	L	L	
162	E						E	E	E	
163	M						M	M	M	
164	T						T	T	T	
165	P						P	P	P	
166	Q						Q	Q	Q	
167	H	R					()	HH	RR	
168	G						G	G	G	
169	D						D	D	D	
170	V						V	V	V	
171	Y						Y	Y	Y	
172	T						T	T	T	
173	C						C	C	C	
174	H						H	H	H	
175	V						V	V	V	
176	E						E	E	E	
177	H						H	H	H	
178	P						P	P	P	
179	S						S	S	S	
180	L						L	L	L	
181	Q						Q	Q	Q	
182	N	S					NN	()	()	
183	P						P	P	P	
184	I						I	I	I	
185	I	T					II	TT	()	
186	V						V	V	V	
187	E						E	E	E	
188	W						W	W	W	
189	R						R	R	R	
190	A						A	A	A	
191	Q						Q	Q	Q	
192	S						S	S	S	
193	E						E	E	E	
194	S						S	S	S	
195	A						A	A	A	
196	Q						Q	Q	Q	
197	N	S					SS	NS	()	
198	K						K	K	K	
199	M						M	M	M	
200	L						L	L	L	
201	S						S	S	S	
202	G						G	G	G	
203	I	V					()	()	()	
204	G						G	G	G	

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Fig.
Diagram 94

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
205	G						G	G	G	
206	F						F	F	F	
207	V						V	V	V	
208	L						L	L	L	
209	G						G	G	G	
210	L						L	L	L	
211	I						I	I	I	
212	F						F	F	F	
213	L						L	L	L	
214	G						G	G	G	
215	L						L	L	L	
216	G						G	G	G	
217	L						L	L	L	
218	I						I	I	I	
219	I						I	I	I	
220	H	R					HH	()	()	
221	H	Q					HH	()	()	
222	R						R	R	R	
223	S						S	S	S	
224	Q	R					()	()	QR	
225	K						K	K	K	
226	G						G	G	G	
227	P						P	P	P	
228	Q						Q	Q	Q	
229	G						G	G	G	
230	P						P	P	P	
231	P						P	P	P	
232	P						P	P	P	
233	A						A	A	A	
234	G						G	G	G	
235	L						L	L	L	
236	L						L	L	L	
237	H						H	H	H	

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Fig.
Diagram 95

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	M						M	M	M	
28	V						V	V	V	
27	C						C	C	C	
26	L						L	L	L	
25	K	R					RR	RR	RR	
24	F	L					F or L	F or L	F or L	
23	P						P	P	P	
22	G						G	G	G	
21	G						G	G	G	
20	S						S	S	S	
19	C						C	C	C	
18	M						M	M	M	
17	A	T					AA	AA	AA	
16	A	V					VV	VV	A or V	
15	L						L	L	L	
14	T						T	T	T	
13	V						V	V	V	
12	T						T	T	T	
11	L						L	L	L	
10	M						M	M	M	
9	V						V	V	V	
8	L						L	L	L	
8	S						S	S	S	
6	S						S	S	S	
5	P						P	P	P	
4	L						L	L	L	
3	A						A	A	A	
2	L						L	L	L	
1	A	S					A or S	A or S	AA	
1	G						G	G	G	
2	D						D	D	D	
3	T						T	T	T	
4	Q	R					Q or R	Q or R	QR	
5	P						P	P	P	
6	R						R	R	R	
7	F						F	F	F	
8	L						L	L	L	
9	E	K	W				()	WW	KW	
10	E	Q	Y				YY	()	()	
11	D	G	L	P	S	V	DS	()	DP	
12	K	T					K or T	K or T	K or T	
13	F	G	H	R	S	Y	GH	()	FS	
14	E	K					E or K	E or K	E or K	
15	C						C	C	C	
16	H	Q	Y				()	YY	()	
17	F						F	F	F	
18	F						F	F	F	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	E						E	E	E	
23	R						R	R	R	
24	V						V	V	V	
25	Q	R					Q or R	Q or R	Q or R	
26	F	L	Y				FL	()	FL	
27	L						L	L	L	
28	D	E	H				()	()	()	
29	R						R	R	R	
30	C	G	H	L	R	Y	()	()	()	

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Fig.
Diagram 96

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
31	F	I	V				F or I	F or I	FI	
32	H	Y					HH	()	()	
33	H	N					()	()	HH	
34	Q						Q	Q	Q	
35	E						E	E	E	
36	E						E	E	E	
37	F	L	N	S	Y		()	LY	NS	
38	A	L	V				()	()	VV	
39	R						R	R	R	
40	F	Y					F or Y	F or Y	FF	
41	D						D	D	D	
42	S						S	S	S	
43	D						D	D	D	
44	V						V	V	V	
45	G						G	G	G	
46	E						E	E	E	
47	F	Y					F or Y	F or Y	F or Y	
48	R						R	R	R	
49	A						A	A	A	
50	V						V	V	V	
51	T						T	T	T	
52	E						E	E	E	
53	L						L	L	L	
54	G						G	G	G	
55	R						R	R	R	
56	P						P	P	P	
57	A	D	S	V			AV	AV	AV	
58	A	E					A or E	A or E	A or E	
59	E						E	E	E	
60	H	S	Y				()	YY	HS	
61	W						W	W	W	
62	N						N	N	N	
63	S						S	S	S	
64	Q						Q	Q	Q	
65	K						K	K	K	
66	D						D	D	D	
67	F	I	L				FF	FI	FL	
68	L						L	L	L	
69	E						E	E	E	
70	D	Q	R				()	DD	()	
71	A	E	K	R			A	A	A	
72	R						R	R	R	
73	A	G					AA	A or G	A or G	
74	A	E	L	Q	R		()	LL	AE	
75	V						V	V	V	
76	D						D	D	D	
77	N	T					N or T	N or T	N or T	
78	V	Y					VV	V or Y	VY	
79	C						C	C	C	
80	R						R	R	R	
81	H						H	H	H	
82	N						N	N	N	
83	Y						Y	Y	Y	
84	G						G	G	G	
85	A	V					A or V	A or V	VV	
86	G	V					VV	GV	GG	
87	E						E	E	E	
88	S						S	S	S	
89	F						F	F	F	

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Fig.
Diagram 97

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
90	T						T	T	T	
91	V						V	V	V	
92	Q						Q	Q	Q	
93	R						R	R	R	
94	R						R	R	R	
95	V						V	V	V	
96	E	H	Q	Y			EQ	()	()	
97	P						P	P	P	
98	E	K					EK	E or K	EK	
99	V						V	V	V	
100	T						T	T	T	
101	V						V	V	V	
102	Y						Y	Y	Y	
103	P						P	P	P	
104	A	S					AA	A or S	AK	O
105	K						K	K	K	
106	T						T	T	T	
107	Q						Q	Q	Q	
108	P						P	P	P	
109	L						L	L	L	
110	Q						Q	Q	Q	
111	H						H	H	H	
112	H						H	H	H	
113	N						N	N	N	
114	L						L	L	L	
115	L						L	L	L	
116	V						V	V	V	
117	C						C	C	C	
118	S						S	S	S	
119	V						V	V	V	
120	N	S					S or N	NN	SS	
121	F						F	F	F	
122	G						G	G	G	
123	Y						Y	Y	Y	
124	P						P	P	P	
125	G						G	G	G	
126	S						S	S	S	
127	I						I	I	I	
128	E						E	E	E	
129	V						V	V	V	
130	R						R	R	R	
131	W						W	W	W	
132	F						F	F	F	
133	L	R					RR	L or R	RR	
134	N						N	N	N	
135	G						G	G	G	
136	Q						Q	Q	Q	
137	E						E	E	E	
138	E						E	E	E	
139	K						K	K	K	
140	A	T					()	TT	()	
141	G						G	G	G	
142	M	V					VV	M or V	VV	
143	V						V	V	V	
144	S						S	S	S	
145	T						T	T	T	
146	G						G	G	G	
147	L						L	L	L	
148	I						I	I	I	

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Fig.
~~Diagram~~ 98

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
149	H	Q					H or Q	HH	HH	
150	N						N	N	N	
151	G						G	G	G	
152	D						D	D	D	
153	W						W	W	W	
154	T						T	T	T	
155	F						F	F	F	
156	Q						Q	Q	Q	
157	T						T	T	T	
158	L						L	L	L	
159	V						V	V	V	
160	M						M	M	M	
161	L						L	L	L	
162	E						E	E	E	
163	T						T	T	T	
164	F	V					()	()	()	
165	P						P	P	P	
166	Q	R					Q or R	Q or R	RR	
167	S						S	S	S	
168	G						G	G	G	
169	E						E	E	E	
170	V						V	V	V	
171	Y						Y	Y	Y	
172	T						T	T	T	
173	C						C	C	C	
174	Q						Q	Q	Q	
175	V						V	V	V	
176	E						E	E	E	
177	H						H	H	H	
178	P						P	P	P	
179	S						S	S	S	
180	L	V					L or V	L or V	L or V	
181	M	T					()	()	()	
182	S						S	S	S	
183	P						P	P	P	
184	L						L	L	L	
185	T						T	T	T	
186	V						V	V	V	
187	E						E	E	E	
188	W						W	W	W	
189	R	S					RR	R or S	R or S	
190	A						A	A	A	
191	R						R	R	R	
192	S						S	S	S	
193	E						E	E	E	
194	S						S	S	S	
195	A						A	A	A	
196	Q						Q	Q	Q	
197	S						S	S	S	
198	K						K	K	K	
199	M						M	M	M	
200	L						L	L	L	
201	S						S	S	S	
202	G						G	G	G	
203	V						V	V	V	
204	G						G	G	G	
205	G						G	G	G	
206	F						F	F	F	
207	V						V	V	V	

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Fig.
Diagram 99

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
208	L						L	L	L	
209	G						G	G	G	
210	L						L	L	L	
211	L						L	L	L	
212	F						F	F	F	
213	L						L	L	L	
214	G						G	G	G	
215	A						A	A	A	
216	G						G	G	G	
217	L						L	L	L	
218	F						F	F	F	
219	I						I	I	I	
220	Y						Y	Y	Y	
221	F						F	F	F	
222	R						R	R	R	
223	N						N	N	N	
224	Q						Q	Q	Q	
225	K						K	K	K	
226	G						G	G	G	
227	H						H	H	H	
228	S						S	S	S	
229	G						G	G	G	
230	L						L	L	L	
231	P	Q					P or Q	P or Q	QQ	
232	P						P	P	P	
233	R	T					R or T	R or T	R or T	
234	G						G	G	G	
235	F						F	F	F	
236	L						L	L	L	
237	S						S	S	S	

Position	Diverse Amino Acid					Amino Acid Configuration to Inhibit Metastases
29	M					M
28	M					M
27	V					V
26	L					L
25	Q					Q
24	V					V
23	S					S
22	A					A
21	A					A
20	P					P
19	R					R
18	T					T
17	V					V
16	A					A
15	L					L
14	T					T
13	A					A
12	L					L
11	L					L
10	M					M
9	V					V
8	L					L
7	L					L
6	T					T
5	S					S
4	V					V
3	V					V
2	Q					Q
1	G					G
1	R					R
2	A					A
3	T					T
4	P					P
5	E					E
6	N					N
7	Y					Y
8	L	V				()
9	F	H	Y			()
10	Q					Q
11	G	L				()
12	R					R
13	Q					Q
14	E					E
15	C					C
16	Y					Y
17	A					A
18	F					F
19	N					N
20	G					G
21	T					T
22	Q					Q
23	R					R
24	F					F
25	L					L
26	E					E
27	R					R
28	Y					Y
29	I					I
30	Y					Y

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Fig.
~~Diagram~~ 101

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
31	N						N
32	R						R
33	E						E
34	E						E
35	F	L	Y				()
36	A	V					()
37	R						R
38	F						F
39	D						D
40	S						S
41	D						D
42	V						V
43	G						G
44	E						E
45	F						F
46	R						R
47	A						A
48	V						V
49	T						T
50	E						E
51	L						L
52	G						G
53	R						R
54	P						P
55	A	D	E				AA
56	A	E					()
57	D	E					()
58	Y						Y
59	W						W
60	N						N
61	S						S
62	Q						Q
63	K						K
64	D						D
65	F	I	L				()
66	L						L
67	E						E
68	E						E
69	E	K					()
70	R						R
71	A						A
72	V						V
73	P						P
74	D						D
75	R						R
76	I	M	V				()
77	C						C
78	R						R
79	H						H
80	N						N
81	Y						Y
82	E						E
83	L						L
84	D	G					()
85	E	G					()
86	A	P					()
87	M	V					()
88	T						T
89	L						L

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Fig.
~~Diagram~~ 102

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
90	Q						Q
91	R						R
92	R						R
93	V						V
94	Q						Q
95	P						P
96	K	R					()
97	V						V
98	N						N
99	V						V
100	S						S
101	P						P
102	S						S
103	K						K
104	K						K
105	G						G
106	P						P
107	L						L
108	Q						Q
109	H						H
110	H						H
111	N						N
112	L						L
113	L						L
114	V						V
115	C						C
116	H						H
117	V						V
118	T						T
119	D						D
120	F						F
121	Y						Y
122	P						P
123	G						G
124	S						S
125	I						I
126	Q						Q
127	V						V
128	R						R
129	W						W
130	F						F
131	L						L
132	N						N
133	G						G
134	Q						Q
135	E						E
136	E						E
137	T						T
138	A						A
139	G						G
140	V						V
141	V						V
142	S						S
143	T						T
144	N						N
145	L						L
146	I						I
147	R						R
148	N						N

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Fig.
~~Diagram~~ 103

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
149	G						G
150	D						D
151	W						W
152	T						T
153	F						F
154	Q						Q
155	I						I
156	L						L
157	V						V
158	M						M
159	L						L
160	E						E
161	M						M
162	T						T
163	P						P
164	Q						Q
165	Q						Q
166	G						G
167	D						D
168	V						V
169	Y						Y
170	I	T					()
171	C						C
172	Q						Q
173	V						V
174	E						E
175	H						H
176	T						T
177	S						S
178	L	M					()
179	D						D
180	S						S
181	P						P
182	V						V
183	T						T
184	V						V
185	E						E
186	W						W
187	K						K
188	A						A
189	Q						Q
190	S						S
191	D						D
192	S						S
193	A						A
194	R						R
195	S						S
196	K						K
197	T						T
198	L						L
199	T						T
200	G						G
201	A						A
202	G						G
203	G						G
204	F						F
205	V						V
206	L						L
207	G						G

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Fig.
Diagram 104

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
208	L						L
209	I						I
210	I						I
211	C						C
212	G						G
213	V						V
214	G						G
215	I						I
216	F						F
217	M						M
218	H						H
219	R						R
220	R						R
221	S						S
222	K						K
223	K						K
224	V						V
225	Q						Q
226	R						R
227	G						G
228	S						S
229	A						A

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Fig.
~~Diagram~~ 105

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
32	M						M
31	S						S
30	W						W
29	K						K
28	K						K
27	A	S					()
26	L						L
25	R						R
24	I						I
23	P						P
22	G						G
21	D	G					()
20	L						L
19	R						R
18	A	V					()
17	A						A
16	T						T
15	V						V
14	T						T
13	L						L
12	M						M
11	L						L
10	A	S					()
9	I	M					()
8	L						L
7	S						S
6	S	T					()
5	L	P	S				()
4	L	V					()
3	A						A
2	E						E
1	G						G
1	R						R
2	D						D
3	P	S					()
4	P						P
5	E						E
6	D						D
7	F						F
8	V						V
9	F	L	Y				()
10	Q						Q
11	F						F
12	K						K
13	A	G					()
14	L	M					LM
15	C						C
16	Y						Y
17	F						F
18	T						T
19	N						N
20	G						G
21	T						T
22	E						E
23	L	R					()
24	V						V
25	R						R
26	G	L	Y				()
27	V						V

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Fig.
Diagram 106

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
28	S	T					()
29	R						R
30	H	S	Y				()
31	I						I
32	Y						Y
33	N						N
34	R						R
35	E						E
36	E						E
37	D	I	Y				()
38	A	V					()
39	R						R
40	F						F
41	D						D
42	S						S
43	D						D
44	V						V
45	E	G					()
46	E	V					()
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	L	P					()
53	L	Q					()
54	G						G
55	L	P	R				()
56	L	P					()
57	A	D	S	V			()
58	A						A
59	E						E
60	Y						Y
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D	E					()
67	I	V					()
68	L						L
69	E						E
70	E	G	R				()
71	A	D	K	T			()
72	R						R
73	A						A
74	A	E	S				()
75	L	V					()
76	D						D
77	R	T					RT
78	V						V
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	E	Q					()
85	L	V					()
86	A	E	G				()

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Fig.
Diagram 107

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
87	F	L	Y				LL
88	R						R
89	G	T					()
90	I	T					()
91	L						L
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E						E
97	P						P
98	T						T
99	V						V
100	T						T
101	I						I
102	S						S
103	P						P
104	S						S
105	R						R
106	T						T
107	E						E
108	A						A
109	L						L
110	N						N
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	I	V					IV
117	C						C
118	S						S
119	V						V
120	T						T
121	D						D
122	F						F
123	Y						Y
124	P						P
125	A	G	S				AA
126	H	Q					()
127	I						I
128	K						K
129	V						V
130	Q	R					()
131	W						W
132	F						F
133	R						R
134	N						N
135	D						D
136	Q						Q
137	E						E
138	E						E
139	T						T
140	A	T					()
141	G						G
142	V						V
143	V						V
144	S						S
145	T						T

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Fig.
Diagram 108

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
146	P						P
147	L						L
148	I						I
149	R						R
150	N						N
151	G						G
152	D						D
153	W						W
154	T						T
155	F						F
156	Q						Q
157	I						I
158	L						L
159	V						V
160	M						M
161	L						L
162	E						E
163	M						M
164	T						T
165	P						P
166	Q						Q
167	H	R					()
168	G						G
169	D						D
170	V						V
171	Y						Y
172	T						T
173	C						C
174	H						H
175	V						V
176	E						E
177	H						H
178	P						P
179	S						S
180	L						L
181	Q						Q
182	N	S					()
183	P						P
184	I						I
185	I	T					()
186	V						V
187	E						E
188	W						W
189	R						R
190	A						A
191	Q						Q
192	S						S
193	E						E
194	S						S
195	A						A
196	Q						Q
197	N	S					()
198	K						K
199	M						M
200	L						L
201	S						S
202	G						G
203	I	V					II
204	G						G

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Fig.
Diagram 109

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
205	G						G
206	F						F
207	V						V
208	L						L
209	G						G
210	L						L
211	I						I
212	F						F
213	L						L
214	G						G
215	L						L
216	G						G
217	L						L
218	I						I
219	I						I
220	H	R					()
221	H	Q					()
222	R						R
223	S						S
224	Q	R					QR
225	K						K
226	G						G
227	P						P
228	Q						Q
229	G						G
230	P						P
231	P						P
232	P						P
233	A						A
234	G						G
235	L						L
236	L						L
237	H						H

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Fig.
Diagram 110

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
29	M						M
28	V						V
27	C						C
26	L						L
25	K	R					()
24	F	L					LL
23	P						P
22	G						G
21	G						G
20	S						S
19	C						C
18	M						M
17	A	T					()
16	A	V					()
15	L						L
14	T						T
13	V						V
12	T						T
11	L						L
10	M						M
9	V						V
8	L						L
8	S						S
6	S						S
5	P						P
4	L						L
3	A						A
2	L						L
1	A	S					()
1	G						G
2	D						D
3	T						T
4	Q	R					()
5	P						P
6	R						R
7	F						F
8	L						L
9	E	K	W				()
10	E	Q	Y				()
11	D	G	L	P	S	V	()
12	K	T					()
13	F	G	H	R	S	Y	()
14	E	K					()
15	C						C
16	H	Q	Y				()
17	F						F
18	F						F
19	N						N
20	G						G
21	T						T
22	E						E
23	R						R
24	V						V
25	Q	R					()
26	F	L	Y				()
27	L						L
28	D	E	H				()
29	R						R
30	C	G	H	L	R	Y	()

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Fig.
~~Diagram~~ 111

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
31	F	I	V				()
32	H	Y					()
33	H	N					()
34	Q						Q
35	E						E
36	E						E
37	F	L	N	S	Y		()
38	A	L	V				()
39	R						R
40	F	Y					()
41	D						D
42	S						S
43	D						D
44	V						V
45	G						G
46	E						E
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	E						E
53	L						L
54	G						G
55	R						R
56	P						P
57	A	D	S	V			()
58	A	E					()
59	E						E
60	H	S	Y				()
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D						D
67	F	I	L				()
68	L						L
69	E						E
70	D	Q	R				()
71	A	E	K	R			()
72	R						R
73	A	G					()
74	A	E	L	Q	R		()
75	V						V
76	D						D
77	N	T					()
78	V	Y					()
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	G						G
85	A	V					()
86	G	V					()
87	E						E
88	S						S
89	F						F

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Fig.
~~Diagram~~ 112

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
90	T						T
91	V						V
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E	H	Q	Y			()
97	P						P
98	E	K					()
99	V						V
100	T						T
101	V						V
102	Y						Y
103	P						P
104	A	S					()
105	K						K
106	T						T
107	Q						Q
108	P						P
109	L						L
110	Q						Q
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	V						V
117	C						C
118	S						S
119	V						V
120	N	S					()
121	F						F
122	G						G
123	Y						Y
124	P						P
125	G						G
126	S						S
127	I						I
128	E						E
129	V						V
130	R						R
131	W						W
132	F						F
133	L	R					()
134	N						N
135	G						G
136	Q						Q
137	E						E
138	E						E
139	K						K
140	A	T					()
141	G						G
142	M	V					()
143	V						V
144	S						S
145	T						T
146	G						G
147	L						L
148	I						I

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Fig.
Diagram 113

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
149	H	Q					()
150	N						N
151	G						G
152	D						D
153	W						W
154	T						T
155	F						F
156	Q						Q
157	T						T
158	L						L
159	V						V
160	M						M
161	L						L
162	E						E
163	T						T
164	F	V					()
165	P						P
166	Q	R					()
167	S						S
168	G						G
169	E						E
170	V						V
171	Y						Y
172	T						T
173	C						C
174	Q						Q
175	V						V
176	E						E
177	H						H
178	P						P
179	S						S
180	L	V					()
181	M	T					()
182	S						S
183	P						P
184	L						L
185	T						T
186	V						V
187	E						E
188	W						W
189	R	S					()
190	A						A
191	R						R
192	S						S
193	E						E
194	S						S
195	A						A
196	Q						Q
197	S						S
198	K						K
199	M						M
200	L						L
201	S						S
202	G						G
203	V						V
204	G						G
205	G						G
206	F						F
207	V						V

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Fig.
~~Diagram~~ 114

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
208	L						L
209	G						G
210	L						L
211	L						L
212	F						F
213	L						L
214	G						G
215	A						A
216	G						G
217	L						L
218	F						F
219	I						I
220	Y						Y
221	F						F
222	R						R
223	N						N
224	Q						Q
225	K						K
226	G						G
227	H						H
228	S						S
229	G						G
230	L						L
231	P	Q					()
232	P						P
233	R	T					()
234	G						G
235	F						F
236	L						L
237	S						S

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Fig.
~~Diagram~~ 115

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
29	M						M
28	M						M
27	V						V
26	L						L
25	Q						Q
24	V						V
23	S						S
22	A						A
21	A						A
20	P						P
19	R						R
18	T						T
17	V						V
16	A						A
15	L						L
14	T						T
13	A						A
12	L						L
11	L						L
10	M						M
9	V						V
8	L						L
7	L						L
6	T						T
5	S						S
4	V						V
3	V						V
2	Q						Q
1	G						G
1	R						R
2	A						A
3	T						T
4	P						P
5	E						E
6	N						N
7	Y						Y
8	L	V					LL
9	F	H	Y				()
10	Q						Q
11	G	L					LL
12	R						R
13	Q						Q
14	E						E
15	C						C
16	Y						Y
17	A						A
18	F						F
19	N						N
20	G						G
21	T						T
22	Q						Q
23	R						R
24	F						F
25	L						L
26	E						E
27	R						R
28	Y						Y
29	I						I
30	Y						Y

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Fig.
Diagram 116

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
31	N						N
32	R						R
33	E						E
34	E						E
35	F	L	Y				()
36	A	V					()
37	R						R
38	F						F
39	D						D
40	S						S
41	D						D
42	V						V
43	G						G
44	E						E
45	F						F
46	R						R
47	A						A
48	V						V
49	T						T
50	E						E
51	L						L
52	G						G
53	R						R
54	P						P
55	A	D	E				()
56	A	E					()
57	D	E					EE
58	Y						Y
59	W						W
60	N						N
61	S						S
62	Q						Q
63	K						K
64	D						D
65	F	I	L				()
66	L						L
67	E						E
68	E						E
69	E	K					()
70	R						R
71	A						A
72	V						V
73	P						P
74	D						D
75	R						R
76	I	M	V				II
77	C						C
78	R						R
79	H						H
80	N						N
81	Y						Y
82	E						E
83	L						L
84	D	G					GG
85	E	G					GG
86	A	P					MM
87	M	V					MM
88	T						T
89	L						L

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Fig.
Diagram-117

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
90	Q						Q
91	R						R
92	R						R
93	V						V
94	Q						Q
95	P						P
96	K	R					()
97	V						V
98	N						N
99	V						V
100	S						S
101	P						P
102	S						S
103	K						K
104	K						K
105	G						G
106	P						P
107	L						L
108	Q						Q
109	H						H
110	H						H
111	N						N
112	L						L
113	L						L
114	V						V
115	C						C
116	H						H
117	V						V
118	T						T
119	D						D
120	F						F
121	Y						Y
122	P						P
123	G						G
124	S						S
125	I						I
126	Q						Q
127	V						V
128	R						R
129	W						W
130	F						F
131	L						L
132	N						N
133	G						G
134	Q						Q
135	E						E
136	E						E
137	T						T
138	A						A
139	G						G
140	V						V
141	V						V
142	S						S
143	T						T
144	N						N
145	L						L
146	I						I
147	R						R
148	N						N

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Fig.

Diagram 118

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
149	G						G
150	D						D
151	W						W
152	T						T
153	F						F
154	Q						Q
155	I						I
156	L						L
157	V						V
158	M						M
159	L						L
160	E						E
161	M						M
162	T						T
163	P						P
164	Q						Q
165	Q						Q
166	G						G
167	D						D
168	V						V
169	Y						Y
170	I	T					I
171	C						C
172	Q						Q
173	V						V
174	E						E
175	H						H
176	T						T
177	S						S
178	L	M					I
179	D						D
180	S						S
181	P						P
182	V						V
183	T						T
184	V						V
185	E						E
186	W						W
187	K						K
188	A						A
189	Q						Q
190	S						S
191	D						D
192	S						S
193	A						A
194	R						R
195	S						S
196	K						K
197	T						T
198	L						L
199	T						T
200	G						G
201	A						A
202	G						G
203	G						G
204	F						F
205	V						V
206	L						L
207	G						G

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Fig.
Diagram 119

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
208	L						L
209	I						I
210	I						I
211	C						C
212	G						G
213	V						V
214	G						G
215	I						I
216	F						F
217	M						M
218	H						H
219	R						R
220	R						R
221	S						S
222	K						K
223	K						K
224	V						V
225	Q						Q
226	R						R
227	G						G
228	S						S
229	A						A

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Fig.
Diagram 120

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
32	M						M
31	S						S
30	W						W
29	K						K
28	K						K
27	A	S					()
26	L						L
25	R						R
24	I						I
23	P						P
22	G						G
21	D	G					()
20	L						L
19	R						R
18	A	V					()
17	A						A
16	T						T
15	V						V
14	T						T
13	L						L
12	M						M
11	L						L
10	A	S					()
9	I	M					()
8	L						L
7	S						S
6	S	T					()
5	L	P	S				()
4	L	V					()
3	A						A
2	E						E
1	G						G
1	R						R
2	D						D
3	P	S					()
4	P						P
5	E						E
6	D						D
7	F						F
8	V						V
9	F	L	Y				()
10	Q						Q
11	F						F
12	K						K
13	A	G					()
14	L	M					()
15	C						C
16	Y						Y
17	F						F
18	T						T
19	N						N
20	G						G
21	T						T
22	E						E
23	L	R					()
24	V						V
25	R						R
26	G	L	Y				()
27	V						V

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Fig.
Diagram 121

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
28	S	T					S or ()
29	R						R
30	H	S	Y				()
31	I						I
32	Y						Y
33	N						N
34	R						R
35	E						E
36	E						E
37	D	I	Y				()
38	A	V					()
39	R						R
40	F						F
41	D						D
42	S						S
43	D						D
44	V						V
45	E	G					()
46	E	V					()
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	L	P					()
53	L	Q					()
54	G						G
55	L	P	R				()
56	L	P					()
57	A	D	S	V			()
58	A						A
59	E						E
60	Y						Y
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D	E					()
67	I	V					()
68	L						L
69	E						E
70	E	G	R				()
71	A	D	K	T			()
72	R						R
73	A						A
74	A	E	S				()
75	L	V					()
76	D						D
77	R	T					()
78	V						V
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	E	Q					()
85	L	V					()
86	A	E	G				EG

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Fig.
Diagram 122

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
87	F	L	Y				()
88	R						R
89	G	T					()
90	I	T					()
91	L						L
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E						E
97	P						P
98	T						T
99	V						V
100	T						T
101	I						I
102	S						S
103	P						P
104	S						S
105	R						R
106	T						T
107	E						E
108	A						A
109	L						L
110	N						N
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	I	V					()
117	C						C
118	S						S
119	V						V
120	T						T
121	D						D
122	F						F
123	Y						Y
124	P						P
125	A	G	S				()
126	H	Q					()
127	I						I
128	K						K
129	V						V
130	Q	R					()
131	W						W
132	F						F
133	R						R
134	N						N
135	D						D
136	Q						Q
137	E						E
138	E						E
139	T						T
140	A	T					()
141	G						G
142	V						V
143	V						V
144	S						S
145	T						T

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Fig.
-~~Diagram~~ 123

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
146	P						P
147	L						L
148	I						I
149	R						R
150	N						N
151	G						G
152	D						D
153	W						W
154	T						T
155	F						F
156	Q						Q
157	I						I
158	L						L
159	V						V
160	M						M
161	L						L
162	E						E
163	M						M
164	T						T
165	P						P
166	Q						Q
167	H	R					()
168	G						G
169	D						D
170	V						V
171	Y						Y
172	T						T
173	C						C
174	H						H
175	V						V
176	E						E
177	H						H
178	P						P
179	S						S
180	L						L
181	Q						Q
182	N	S					()
183	P						P
184	I						I
185	I	T					()
186	V						V
187	E						E
188	W						W
189	R						R
190	A						A
191	Q						Q
192	S						S
193	E						E
194	S						S
195	A						A
196	Q						Q
197	N	S					()
198	K						K
199	M						M
200	L						L
201	S						S
202	G						G
203	I	V					()
204	G						G

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Fig.
Diagram 124

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
205	G						G
206	F						F
207	V						V
208	L						L
209	G						G
210	L						L
211	I						I
212	F						F
213	L						L
214	G						G
215	L						L
216	G						G
217	L						L
218	I						I
219	I						I
220	H	R					()
221	H	Q					()
222	R						R
223	S						S
224	Q	R					()
225	K						K
226	G						G
227	P						P
228	Q						Q
229	G						G
230	P						P
231	P						P
232	P						P
233	A						A
234	G						G
235	L						L
236	L						L
237	H						H

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Fig.
Diagram 125

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
29	M						M	M
28	V						V	V
27	C						C	C
26	L						L	L
25	K	R					()	()
24	F	L					()	()
23	P						P	P
22	G						G	G
21	G						G	G
20	S						S	S
19	C						C	C
18	M						M	M
17	A	T					()	()
16	A	V					()	()
15	L						L	L
14	T						T	T
13	V						V	V
12	T						T	T
11	L						L	L
10	M						M	M
9	V						V	V
8	L						L	L
7	S						S	S
6	S						S	S
5	P						P	P
4	L						L	L
3	A						A	A
2	L						L	L
1	A	S					()	()
1	G						G	G
2	D						D	D
3	T						T	T
4	Q	R					()	()
5	P						P	P
6	R						R	R
7	F						F	F
8	L						L	L
9	E	K	W				()	()
10	E	Q	Y				()	()
11	D	G	L	P	S	V	()	()
12	K	T					()	()
13	F	G	H	R	S	Y	()	FF or GR
14	E	K					()	()
15	C						C	C
16	H	Q	Y				()	YY
17	F						F	F
18	F						F	F
19	N						N	N
20	G						G	G
21	T						T	T
22	E						E	E
23	R						R	R
24	V						V	V
25	Q	R					()	()
26	F	L	Y				()	()
27	L						L	L
28	D	E	H				()	()
29	R						R	R
30	C	G	H	L	R	Y	()	()

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Fig.
Diagram 126

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
31	F	I	V				Q	Q
32	H	Y					Q	Q
33	H	N					Q	NN
34	Q						Q	Q
35	E						E	E
36	E						E	E
37	F	L	N	S	Y		Q	Q
38	A	L	V				Q	Q
39	R						R	R
40	F	Y					Q	Q
41	D						D	D
42	S						S	S
43	D						D	D
44	V						V	V
45	G						G	G
46	E						E	E
47	F	Y					Q	Q
48	R						R	R
49	A						A	A
50	V						V	V
51	T						T	T
52	E						E	E
53	L						L	L
54	G						G	G
55	R						R	R
56	P						P	P
57	A	D	S	V			Q	Q
58	A	E					Q	Q
59	E						E	E
60	H	S	Y				Q	Q
61	W						W	W
62	N						N	N
63	S						S	S
64	Q						Q	Q
65	K						K	K
66	D						D	D
67	F	I	L				Q	Q
68	L						L	L
69	E						E	E
70	D	Q	R				Q	Q
71	A	E	K	R			Q	Q
72	R						R	R
73	A	G					Q	Q
74	A	E	L	Q	R		Q	Q
75	V						V	V
76	D						D	D
77	N	T					Q	Q
78	V	Y					Q	Q
79	C						C	C
80	R						R	R
81	H						H	H
82	N						N	N
83	Y						Y	Y
84	G						G	G
85	A	V					Q	Q
86	G	V					Q	Q
87	E						E	E
88	S						S	S
89	F						F	F

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Fig.
Diagram 127

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
90	T						T	T
91	V						V	V
92	Q						Q	Q
93	R						R	R
94	R						R	R
95	V						V	V
96	E	H	Q	Y			()	()
97	P						P	P
98	E	K					()	()
99	V						V	V
100	T						T	T
101	V						V	V
102	Y						Y	Y
103	P						P	P
104	A	S					()	()
105	K						K	K
106	T						T	T
107	Q						Q	Q
108	P						P	P
109	L						L	L
110	Q						Q	Q
111	H						H	H
112	H						H	H
113	N						N	N
114	L						L	L
115	L						L	L
116	V						V	V
117	C						C	C
118	S						S	S
119	V						V	V
120	N	S					()	()
121	F						F	F
122	G						G	G
123	Y						Y	Y
124	P						P	P
125	G						G	G
126	S						S	S
127	I						I	I
128	E						E	E
129	V						V	V
130	R						R	R
131	W						W	W
132	F						F	F
133	L	R					()	()
134	N						N	N
135	G						G	G
136	Q						Q	Q
137	E						E	E
138	E						E	E
139	K						K	K
140	A	T					()	()
141	G						G	G
142	M	V					()	()
143	V						V	V
144	S						S	S
145	T						T	T
146	G						G	G
147	L						L	L
148	I						I	I

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Fig.
-~~Diagram~~ 128

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
149	H	Q					()	()
150	N						N	N
151	G						G	G
152	D						D	D
153	W						W	W
154	T						T	T
155	F						F	F
156	Q						Q	Q
157	T						T	T
158	L						L	L
159	V						V	V
160	M						M	M
161	L						L	L
162	E						E	E
163	T						T	T
164	F	V					()	()
165	P						P	P
166	Q	R					()	()
167	S						S	S
168	G						G	G
169	E						E	E
170	V						V	V
171	Y						Y	Y
172	T						T	T
173	C						C	C
174	Q						Q	Q
175	V						V	V
176	E						E	E
177	H						H	H
178	P						P	P
179	S						S	S
180	L	V					()	()
181	M	T					()	()
182	S						S	S
183	P						P	P
184	L						L	L
185	T						T	T
186	V						V	V
187	E						E	E
188	W						W	W
189	R	S					()	()
190	A						A	A
191	R						R	R
192	S						S	S
193	E						E	E
194	S						S	S
195	A						A	A
196	Q						Q	Q
197	S						S	S
198	K						K	K
199	M						M	M
200	L						L	L
201	S						S	S
202	G						G	G
203	V						V	V
204	G						G	G
205	G						G	G
206	F						F	F
207	V						V	V

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Fig.
Diagram 129

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
208	L						L	L
209	G						G	G
210	L						L	L
211	L						L	L
212	F						F	F
213	L						L	L
214	G						G	G
215	A						A	A
216	G						G	G
217	L						L	L
218	F						F	F
219	I						I	I
220	Y						Y	Y
221	F						F	F
222	R						R	R
223	N						N	N
224	Q						Q	Q
225	K						K	K
226	G						G	G
227	H						H	H
228	S						S	S
229	G						G	G
230	L						L	L
231	P	Q					()	()
232	P						P	P
233	R	T					()	()
234	G						G	G
235	F						F	F
236	L						L	L
237	S						S	S